

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Applicant:**

**Roy Cohen**

Serial No.: 09/853,717

**Filed: 14 MAY 2001**

For: INFORMATION PROTECTION  
BY NAVIGATION AND §  
CONCEALMENT §

**Examiner:**

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**Group Art Unit: 2137**

**§ Attorney**  
**Docket: 3025/1**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

AFFIDAVIT UNDER 37 CFR 1.132

### **Analysis of the encryption method invented by Roy Cohen**

This method attempts to solve several fundamental issues regarding strong encryption of objects that include plain text, byte code, bit streams, messaging and data acquisition and control. The key advantages to the encryption method are:

- Lightweight cross platform, cross operating system code across many devices.
- Unbreakable keys using random strings produced by human action.
- Extremely fast encryption/decryption with negligible processing requirements
- Elimination of 'man-in-middle' interception of keys.
- Ability to interoperate with existing and proprietary communication protocols.
- Ability to encrypt at the object, and transmission packet level.
- Ability to modify symmetric keys in real time (session key changing).
- Eliminates mathematical methods (prime numbers, discrete logarithms).
- Adaptable to any computerized device (computer, smart card, token, router).
- Adaptable to embedded circuit design such as ASIC and DSP chips.
- Broad application support streaming media, collaboration, file storage, authentication, messaging, command and control.


The *primary* advantage provided by this encryption method is a truly unique and very fast way to generate randomness that is transparent and easy to implement. The method is able to harness human randomness in order to initiate the construction of symmetric keys while avoiding all the complications that arise with traditional public key infrastructure (PKI) solutions. This alone makes encryption extremely strong, and provably unbreakable in many applications.

Proper implementation of the encryption method will provide security in diverse areas such as:

- User authentication management and security access control,
- cellular communications,
- video and audio collaboration over the Internet,
- streaming media such as satellite broadcasting,
- next generation magnetic card and smart card uses for authentication,
- device and network routing control,
- data storage and retrieval, and
- financial transaction and payment systems.

Of interest to businesses is the ability to encrypt content over existing communication protocols such as TCP/IP and UDP but much stronger than standard 128 bit SSL/SSH encryption which drastically reduces the implementation costs of any virtual private network (VPN). This encryption method looks to be the first high-strength security solution that eliminates man-in-the-middle attacks. It enables the practical use of symmetric keys for many diverse applications with a significantly reduction in cost of implementation and maintenance compared with existing public key infrastructure (PKI) solutions.

**Andre Szykier**  
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 10-15-2003

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# Andre Szykier

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## Experience

- 1966-1968 United Airlines San Francisco, CA  
**Director Passenger Control**
- Responsible for visa control for international transit passengers
  - Liaison with British Consulate for diplomatic pouch transfers
  - Electronics logistical delivery with Air Continental in Thailand
- 1968-1970 Pacific Bell San Francisco, CA  
**Market Research Manager**
- Managed research studies for California, Nevada, Oregon, Washington
  - Developed pricing studies for new service and hardware offerings
  - Developed wage management software for AT&T union bargaining.
- 1969-1974 Bell Labs Murray Hill, NJ  
**Mathematician**
- Developed first software model for speech recognition.
  - Design Fast Fourier Transform for signal processing for space projects.
  - Communications specialist for the Viking Mars Lander, Mariner Venus and Apollo 9/11 space flights
- 1975-1979 AT&T Basking Ridge NJ  
**Director Business Research**
- Responsible for pricing and market analysis for new services including 800, WATS, Centrex, Cellular and Private Line.
  - Reported to AT&T chairman on the Divestiture task force for breaking up Bell System.
  - Managed market research analysts for numerous projects on behalf of Bell companies.
- 1980-1982 Enigma Concord, CA  
**CEO**
- Provided security software for financial institutions for ATM and teller operations. Clients included Bank of America, Wells Fargo, Bank of the West, Hibernia Bank, Nevada Bank.
  - Enigma was acquired by Walker Associates in 1982.

1982-1988

EVR

Oakland, CA

**CEO**

- Design of secure information systems for financial institutions and government.
- Built the Bank of America Consumer database of 7.3 million households and 23 million accounts. Designed the encryption protocol for the Verca teller ATM. Reported to CIO Max Hopper.
- Worked on the Super Collider project at UC Berkeley Radiation Lab and the Free Electron Laser project at Lawrence Livermore.
- Designed and licensed software for targeted acquisition marketing programs for credit cards. Software (Private Eye) was licensed to Chase Manhattan Bank, Citibank, Manufacturer Hanover, Bank of America and Chemical Bank.

1989-1998

Query Objects

Alameda CA, Great Neck NY

**Founder and CTO**

- Created company of one hundred and sixty domestic employees plus 50 overseas to market and license Private Eye software to Fortune 1000 companies in financial, retail, insurance, medical markets. Redesigned software to provide fractal encryption with 1000 to 1 compression of data.
- Clients included all major banks and American Express, insurance companies AIG and Allstate, General Electric, Columbia Healthcare, major retailers such as KMart, plus telco firms AT&T, Lucent, MCI, Worldcom, Telecom Italia, Orange, and Telenordia.
- Company raised 22 million and went public in 1997 and was acquired by Italian telecommunications software firm in 2000.

1999-2000

GNP

Henderson, NV

**Founder and CTO**

- Built an ASP facility for secure business ecommerce.
- Managed staff of 19 and developed 50,000 sq ft hosting facility in Las Vegas with state of the art security, software and encryption.
- Provided VPN services to retail and CPG clients in US
- Company raised \$15 million, later acquired by Colo.com

2001

Cybelius Software

Oulu, Finland

**CTO**

- Managed development of 3d prototyping software for cellular manufacturers including Nokia, Samsung and Sony.
- Managed staff of 23 developers in Finland, Hungary and California.
- Firm was folded back into parent company CCC in Finland.

2002 - Proqueome New York, Delaware, California

**CEO**

- Secure data grid for bio-informatics and proteomics
- Clients include Travelkey, Sita, Pax Scientific, Virtual Enterprise Solutions, Virtual Experts, Instancia, Comptrex AU, HP
- Provide security grid computing and data storage services to government agencies including FedCirc, TSA, NSA and Interpol.
- Company offers the first secure, recoverable, distributed, virtual storage solution.

**Education**

BS Econometrics, MS Applied Mathematics

**Citizenship**

US citizen, dual citizenship Great Britain